

## Three-Part Integrative Approach for the Treatment of Peripheral Neuropathy

By Steve Liu, LAc, BSEE

It is estimated that more than 20 million Americans suffer from some form of peripheral neuropathy (PN). Although most PN symptoms are manifested in the extremities, it is not a simple disease in the hands or feet. It is a complex disorder in the peripheral nervous system, and it is becoming more common for acupuncturists to treat these PN patients.

I have been a laser acupuncturist for more than 20 years, and I consider PN one of the most challenging medical conditions to treat in my TCM practice. No effective treatments exist for PN in Western medicine, and generally acupuncture alone only provides limited and temporary pain relief. Often, the causes of the disorder are not obviously known, and complaints of symptoms differ widely from patient to patient. I have seen time and again that when all else has failed, PN sufferers often seek acupuncture as a last resort.

To learn more on how to treat PN, I highly recommend you read Bill Reddy's "Peripheral Neuropathy: Improving Outcomes," published in the **August 2021 issue** of *Acupuncture Today*. In this very informative article Dr. Reddy lists acupoints to use, supplements to consider and integrative approaches to improve the treatment outcomes. It was his mentioning of the integrative approaches that caught my attention and inspired me to write this article to supplement his approaches with my own integrative modalities that have been proven clinically to have effective outcomes.

My suggested integrative approach for treating the PN condition includes electroacupuncture therapy, photobiomodulation therapy (PBMT – formerly known as low-level laser therapy) and lifestyle modification therapy.

### 1. Electroacupuncture

It is wonderful to know that the acupoints Dr. Reddy listed were almost identical to my protocol, except I'd use electricity across the *Bafeng* points from big toe to little toe.

(*Note*: A word of caution about using an electric stimulator on the feet with PN patients. Since their sensory functions are often already compromised by the time they come to see you, many PN patients no longer can sense the electricity even at microamp range. For this reason, you may need to amp up to milliamp range, mindfully keep asking the patients if they can feel the current while you slowly increase the amplitude, and turn it back down if the patient begins to complain of a burning pain sensation. A PN patient's dysfunctional sensory function may no longer sense the pulsating feelings, and the high electrical setting may begin to activate the nerve pain instead.)

### 2. Photobiomodulation

When it comes to healing and rejuvenating nerves, there is nothing better than PBMT. Many acupuncturists may know that PBMT increases blood flow and new collagen production, reduces scar-tissue formation and lowers inflammation. But many may not know about PBMT's unique healing properties of nerve regeneration. PBMT increases the proliferation of growth factors that promote neural sprouting and myelin sheath formation for optimal nerve recovery.

Researchers have published numerous studies on the benefits of using PBMT for nerve regeneration. In a 2017 study published in the *Journal of Laser in Medical Science*, researchers found that exposing injured nerve tissue to a red light therapy could accelerate the regeneration process.<sup>1</sup> In a systemic review published in 2018 ["Photobiomodulation Therapy (PBMT) in Peripheral Nerve Regeneration: A Systematic Review"], researchers looked at 26 studies performed in the previous decade.<sup>2</sup> They found PBMT could accelerate the nerve regeneration process, increase the number of myelin fibers, and improve the organization of the thin layer of tissue that makes up the myelin. The review of the studies also revealed that PBM improves the electrical properties of the treated tissue, decreases inflammation and most importantly, alleviates pain.

### A Roadblock: Statin Meds

Because of this unique nerve-healing feature of PBMT, I decided in my early research phase that for an effective clinical PN treatment protocol, the PMBT must be combined with electroacupuncture therapy to improve the treatment outcomes. The combo modality was a winner until I hit another nerve-healing roadblock with PN patients who were on statin medications.

Statin drugs are prescribed for millions of Americans to lower cholesterol. Therefore, it's safe to assume many of our patients are taking the drugs. There are serious risks to taking statin drugs, and peripheral neuropathy turns out to be one of the major side effects.

According to a study published in the May 14, 2002 issue of *Neurology*, the scientific journal of the American Academy of Neurology, statin drugs can increase the risk of developing peripheral neuropathy. People taking statins were 14 times more likely to develop peripheral neuropathy than people who were not taking statins, according to the Danish study.<sup>3</sup>

The statin class of drugs depletes coenzyme Q10, and this is a major problem in treating PN patients who are on statins.<sup>4</sup>

### 3. Lifestyle Modification

This is where the last piece of my PN treatment protocol comes in to sustain the therapeutic benefits of electroacupuncture and photobiomodulation therapy: lifestyle modification.

In a landmark 1994 study published in the *Journal of Nutritional Medicine* titled "Regression of Diabetic Neuropathy With Total Vegetarian (Vegan) Diet,"<sup>5</sup> 21 diabetics who had been suffering from PN for up to 10 years were placed on a whole-food, plant-based diet. Seventeen out of 21 PN patients reported they felt complete relief from their pain within days, and their numbness noticeably improved, too. On top of these impressive outcomes, their triglyceride and cholesterol levels also improved significantly, so they could be taken off their statin drugs.

Armed with the truth of a plant-based diet<sup>6</sup> and my own experience, I began to incorporate the lifestyle change into my PN treatment protocol. Throughout the course of 10 treatments with a twice-weekly protocol in my clinic, I coach PN patients about lifestyle change as a natural, nontoxic treatment. Along with the proven therapeutic effects of electroacupuncture and photobiomodulation therapy, the integrative protocol has become a very effective program and rewarded me with many word-of-mouth referrals.

### Case Studies to Consider

The following are two cases from my practice to exemplify the outcomes from the protocol:

*Case Study #1*: In October, 2020, a 70-year-old Hispanic male who owned a carpet-cleaning business for years presented with a chief complaint of both feet feeling "weird" and soreness that felt worse at night for several months. Recently, he had also developed tingling and numbness in his toes and the balls of his feet, which caused him to be wobbly while treadmill walking.

The patient didn't drink alcohol or smoke, and he had never taken statin drugs. He had no history of diabetes. I diagnosed him with idiopathic peripheral neuropathy since the cause has no known origin.

Lifestyle modification was discussed and the patient agreed to do his best to change. Electroacupuncture and PBMT combo-protocol was given twice a week for a course of 10 treatments. He felt much better immediately after the first treatment, and by the fifth visit, he reported he was able to walk without swaying on the treadmill.

Treatment visits were continued once a week thereafter, and sustained improvement was felt objectively by the patient. To this moment, the patient continues peripheral neuropathy treatments once every two weeks as tuneups.

*Case Study #2*: In April, 2021, a 75-year-old white male presented with a chief complaint of pain in his feet. He had been on statins for decades. He was experiencing a burning sensation, mostly in the toes; as well as the balls of both feet and the arches. After receiving the clinic's treatment protocol for peripheral neuropathy, he experienced a dramatic improvement with the burning sensation, and by the sixth visit, the patient was only experiencing the burning sensation sporadically.

By the end of a month's treatment, visiting the clinic twice every week, the patient was only feeling a little bit of a tingling sensation on the dorsal side of the foot and the burning pain sensation was gone. He now comes in every three weeks for tuneups.

### References

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