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ARPneuro Therapy PATIENT RESULTS

Introduction

Peripheral neuropathy refers to damage to the peripheral nervous system, the system of nerves which convey sensory information to the central nervous system. It estimated that more than 20 million Americans suffer from some degree of peripheral neuropathy, with cases from mild to severely disabling. There are several known causes of peripheral neuropathy, including physical injury with direct damage to nerves, autoimmune diseases, including demyelinating disorders, infection, including viruses such as varicella-zoster virus (the virus which causes chicken pox and shingles), vitamin and nutritional deficiencies, most notably B vitamin deficiencies, medications, most notably chemotherapy medications, and diabetes. The leading cause of peripheral neuropathy in the United States is diabetes. It is estimated that 60-70% of patients with diabetes have some degree of neuropathy.

Despite its wide spread prevalence there are relatively few treatment options for peripheral neuropathy, with none offering complete resolution of symptoms. Current available treatment options include medications, (the most commonly prescribed being psychotropic medications such as gabapentin, pregabalin, lamotrigine, and carbamazepine), and local anesthetics such as lidocaine patches.

It is our theory that electrical nerve stimulation by means of ARPneuro therapy can be demonstrated as an effective treatment option for peripheral neuropathy by means of direct nerve stimulation and improvement of nerve functioning.

Methods

Twenty patients were selected for this study between the ages of 60-85. These patients had previously been diagnosed with peripheral neuropathy with 10g monofilament scores ranging from 0/10 to 7/10 indicating loss of sensation to lower extremities. Chief complaints were numbness in feet and legs, burning, shooting, or stabbing night pain in feet and legs, difficulty walking, muscle weakness, and imbalance. All patients had many, if not all of these symptoms. Patients had had these complaints and

symptoms for a minimum of 5 years. Patients had tried previous treatments including medications and physical therapy with no improvements in their symptoms.

Results

In this study we assessed improvements in several measured areas based on subjective statements. Patients were treated for 12 to 20 sessions and asked to rate their improvements. Surprisingly all patients described benefits from treatment with decreased symptoms of neuropathy. Patients subjectively rated their symptoms such as pain, difficulty walking, numbness, and balance with noted improvements in all. 10g monofilament scores improved an average of 4 points on the 10-point scale, indicating increased sensation. Muscle strength, assessed on a 5-point scale, with 5/5 being full strength, increased by an average of 1 point. Balance and stability as measured by heel to toe stance showed improvement in all patients. In patients who stated they had pain, all stated they had marked improvements in their pain scale scores, with an average reduction of pain by 3 points on a 10-point pain scale.

Discussion

In our use of ARPneuro therapy, we have shown a marked and effective therapy program for the treatment of peripheral neuropathy. Our hypothesis that the use of e-stim therapy to improve and enhance nerve functioning appears to be supported in our study. We observed improvements in nerve functioning in all of our study patients as demonstrated by their increases in sensation and reduction of nerve pain symptoms. These improvements in nerve functioning were further demonstrated by our patients' improvements in walking ability and balance. We have not seen this level of improvement with any other treatment regimes. Most notably there are no real side effects or complications associated with this therapy. We are excited to continue our ongoing study to observe the long-term effects and continued reduction of symptoms in our patients.

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