Phantom Limb Pain successfully treated with Scrambler Therapy

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Phantom Limb Pain successfully treated with Scrambler Therapy

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Currently, literature reports prevalence of Phantom Limb Pain (PLP) in the 80% of amputees and usually occurs immediately after amputation, more often in the following six months, more rarely many years after. The current available treatment options are of pharmacological and non-pharmacological nature, including opioids, antidepressants, anticonvulsants, benzodiazepines, anti-inflammatory drugs (NSAIDs) and others, with extreme variability of success. Non-drug treatments are represented by Transcutaneous Electrical Nerve Stimulator (TENS), massage, hypnotherapy, mirror therapy and brain stimulation. 1

Among the non-pharmacological approaches we tried to use Scrambler Therapy (ST). MCS® Calmare is a medical device (Class IIa) indicated for chronic pain therapy, even in cases of opioids resistance, non-invasive system, side-effect free, simulating up to 5 artificial neurons that give to the brain a fake signal of "no pain". We used ST for a 54-year-old male patient who had undergone traumatic amputation of the lower left limb at the age of 30 following a car accident, experienced severe, burning, continuous pain with spontaneous episodes of greater intensity at the sites of the stump and the entire lower left limb.

Patient was previously treated in another Institute with Tramadol, Ketorol and Pregabalin, medullary electrostimulation, carbamazepine and amitriptyline with partial control of pain.

When he presented at our Hospice we decided to treat him due to the high intensity of the pain (median NRS 7) and partial response to other treatment. He underwent 10 daily thirty-minute sessions over a period of two five-day weeks. We assessed pain at the first visit, before each treatment session and at the end of each session by the Number Rating Scale (NRS) and DN4 questionnaire to assess the patient’s neuropathic pain monitoring it for 60 days.
We noted an important success of Scrambler Therapy immediately afterwards first session when pain had disappeared and NRS was reduced and was maintained at NRS 0 at the final of each session. After 4 sessions we observed an NRS reduction before and after treatment, with only a slight residual tingling sensation in the residual limb that allow a dose escalation of Pregabalin alone 75mg twice daily.

Follow-up visit after 15 days of treatment till 2 months demonstrated a maintenance of pain absence. In literature more data are available on opioid-based therapies considered the most effective but none is completely resolutive and free of side effects 3 Majithia et al analyzed 20 reports on the effectiveness of the ST on neuropathic pain showed positive results. 4 Data of the last 15 years show that ST may represent an important therapeutic option for patients suffering from chronic neuropathic pain not responsive or refractory to drug treatment. 5 To our knowledge this is one of the few experiences on ST for the treatment of PLP . Therefore, we argue that ST can be fully regarded as a choice of treatment of PLP, complementary to other treatments, surely further controlled studies are needed to confirm our results on the efficacy of ST for this type of neuropathic pain.

References:


