

Tae-Kyu Lee, Kwan-Sung Lee, Shin-Soo Jeun, Young-Kil Hong, Chun-Kun Park, Joon-Ki, Moon-Chan Kim. The control of chronic pain using Microcurrent Electrical Therapy and Cranial Electrotherapy Stimulation. From the Department of Neurosurgery, Kangnam St. Mary's Hospital, College Of Medicine, and The Catholic University of Korea, Seoul, Korea. Presented at the Korea Society for Stereotactic & Functional Neurosurgery April 14, 2004.

Background:

The purpose of the study was to assess the effectiveness of microcurrent electrical therapy (MET) and cranial electrotherapy stimulation (CES) in pain management, because microcurrent electrical therapy and cranial electrotherapy stimulation is new to the management of pain.

Method & Materials:

Twenty refractive chronic pain patients in our hospital were added to the study. Ages ranged from 18 to 75 years (mean = 44 years). Fifteen were females. In this study, the treatments were scheduled for 1hour/day, 5days a week, for 3 weeks. The intensities used range from 100 to 300 microamperes, and often varied from day to day. Both CES and MET treatments were given with Alpha-Stim 100 device which applies CES via ear clip electrodes (Electromedical Products International, Inc., Mineral wells, Texas, 76067, USA).

Results:

Although 3 patients out of 20 obtained no relief from this treatment, 6 obtained complete relief, and an additional 8 patients received significant relief of 33% - 94%. When we looked at the patients treatment response by the length of time they had the pain, we found that patients who had been in pain for 2 months and 4 months improved 94% and 100%. Patients had been asked to note any negative side effect of CES and MET during the treatment.

Conclusion:

The combination of CES and MET is an effective treatment for the patients with chronic pain and is good for long-standing chronic pain as well as for pain of shorter duration.

This study presented thermographic evidence of the results achieved.