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eToims twitch relief method in chronic refractory myofascial pain (CRMP).

Chu J¹, Schwartz I.

Author information

Abstract

INTRODUCTION:

CRMP management involves electrical stimulation of motor points.

OBJECTIVE:

To demonstrate that Electrical Twitch-Obtaining Intramuscular Stimulation (eToims) using ET127 system for noninvasive motor point stimulation is safe and efficacious in CRMP management.

METHOD:

Longitudinal observation of consecutive self-pay outpatients treated from 10/06 through 4/08, divided into Preferred Group ("PG", N = 49, 3 Hz, 4 stimuli/site) and Basic Group ("BG", N = 43, 1 Hz stimulation, 1 stimulus/site). PG and BG had comparable ages, symptom durations, treatment session durations and treatment intervals. Each session involved treatment to large muscles of C4-C7 and L3-S1 myotomes. Outcome measures include prior week's verbal pain levels, pre and immediate post-session pain levels, blood pressure (BP), pulse rate (PR), symptomatic (S) and asymptomatic (A) side range-of-motion (ROM) for neck rotation (NR), shoulder external rotation (ER), shoulder internal rotation (IR), straight leg raising (SLR) and FABERE testing.

RESULTS:

PG and BG showed significant improvements (p < 0.01) in immediate post-session pain levels and measured ROM. Significantly higher ERS (pre and post session percentage changes) noted for BG over PG (p < 0.05). Post-session PR decreased in both groups, more so in PG Systolic BP was mildly elevated in PG but was mildly reduced in BG Both groups showed no diastolic BP changes. Significant negative correlation noted between increasing number of treatments and pain level only in PG (r = -0.3, p = 0.00). Increasing number of treatments in PG correlated significantly with improvement in NRS, NRA, IRS, SLRS, LRA, FABERES and FABEREA whereas BG significantly correlated only for improvement in LRS. PG had lower average pain levels than BG (3.4 +/- 1.9 vs. 4.3 +/- 2.5, p < 0.02).

CONCLUSION:

eToims using ET127 electrical stimulator appears safe and efficacious in CRMP management.