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[Electromyogr Clin Neurophysiol.](#) 2000 Jun;40(4):195-204.

## **Early observations in radiculopathic pain control using electrodiagnostically derived new treatment techniques: automated twitch-obtaining intramuscular stimulation (ATOIMS) and electrical twitch-obtaining intramuscular stimulation (ETOIMS).**

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### **Author information**

#### **Abstract**

#### **OBJECTIVE:**

To show in a pilot group of patients that electrodiagnostically derived new treatment techniques (automated twitch-obtaining intramuscular stimulation (ATOIMS) and electrical twitch-obtaining intramuscular stimulation (ETOIMS) methods) have a role in the control of radiculopathy related myofascial pain and fibromyalgia.

#### **METHOD:**

Retrospective analysis of six patients treated between 6-96 and 10-98. All received sequential treatments with ETOIMS and combined ATOIMS and ETOIMS of which four began treatments with standard TOIMS (StdTOIMS). The StdTOIMS utilized manual oscillation of a monopolar electromyographic (EMG) pin at tender muscle sites. ETOIMS employed microelectrical stimulation at 2 Hz for two seconds/site. The ATOIMS device automatically inserts and retracts a monopolar EMG pin after oscillating it at 2 Hz for three cycles/two seconds/site.

Obtaining forceful muscle twitches were the goals of all three treatments. Treatment included multiple points in bilateral multiple myotomes. Patients received weekly treatments and recorded daily visual analog pain levels.

**RESULTS:**

Significant reductions in pain levels occurred with the use of ETOIMS compared to that achieved with StdTOIMS. The combined use of ATOIMS and ETOIMS was more effective in reducing pain than StdTOIMS or ETOIMS only treatments.

**CONCLUSIONS:**

Control of radiculopathy related myofascial pain and fibromyalgia using the ETOIMS with ATOIMS methods seem promising. Reduction of mechanical tension through muscle relaxation is the proposed basis for the pain relief. There is a need for prospective studies to document efficacy in myofascial pain control.