



## Paper 1

### Impact of integrated neuromuscular inhibition technique versus electro-acupuncture stimulation of posterior tibial nerve in males with chronic pelvic pain of myofascial origin

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#### Abstract

The aim of the study was to examine the impact of the integrated neuromuscular inhibition technique and electro-acupuncture stimulation of posterior tibial nerve in males diagnosed with chronic pelvic pain of myofascial origin. Sixty male patients with chronic pelvic pain participated in this randomized, single-blind, active-controlled trial and they were randomly divided into 3 groups of equal size. The group A (20 patients) received integrated neuromuscular inhibition technique (INIT) and pelvic floor exercise, the group B (20 patients) received posterior tibial nerve electroacupuncture using TENS acupuncture as a noninvasive pelvic floor muscle neuromodulation technique and pelvic floor exercise, and the control group C (20 patients) received pelvic floor exercise only. Serum cortisol level (SCL) measurement was done, and the National Institute of Health Chronic Prostatitis Symptom Index (NIH-CPSI) questionnaire score was used to assess the severity of symptoms of chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS). The measurements were done at baseline and after the next two months. Comparing the three groups post treatment, our results show that there are statistically significant differences in serum cortisol level and in the National Institute of Health Chronic Prostatitis Symptom Index (NIH-CPSI) questionnaire score in both group A and B ( $p < 0.05$ ). There are no statistically significant differences in the control group C ( $p > 0.05$ ). The findings of this research showed a significant reduction of blood cortisol level and improvement of NIH CPSI questionnaire total value in men with chronic pelvic pain who used an integrated neuromuscular inhibition technique and percutaneous posterior tibial nerve stimulation, and a non-significant difference in the control group C. The INIT has superiority over electro-acupuncture stimulation of the posterior tibial nerve in reducing pain and improving quality of life.

**Keywords:** Male chronic pelvic pain syndrome; INIT; electro-acupuncture stimulation; SCL; NIH-CPSI questionnaire.

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