

## Effects of 15 consecutive cryotherapy sessions on the clinical output of fibromyalgic patients.

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### Abstract

Fibromyalgia is a chronic widespread pain disorder in which, the neurogenic origin of the pain, featured by allodynia and hyperalgesia, results from an imbalance in the levels of neurotransmitters and consequently of the peripheral pro- and anti-inflammatory mediators. Whole body cryotherapy is a peculiar physical therapy known to relieve pain and inflammatory symptoms characteristics of rheumatic diseases, through the regulation of the cytokine expression. The aim of this study was to qualitatively evaluate the effects of cryotherapy on the clinical output of fibromyalgic patients. A total of 100 fibromyalgic patients (age range 17-70 years) were observed; 50 subjects were addressed to cryotherapy, while the second group (n = 50) did not underwent to the cryotherapeutic treatment. All subjects kept the prescribed pharmacological therapy during the study (analgesic and antioxidants). The referred health status pre- and post-observation was evaluated with the following scales: Visual Analogue Scale, Short Form-36, Global Health Status and Fatigue Severity Scale. Fibromyalgic patients treated with cryotherapy reported a more pronounced improvement of the quality of life, in comparison with the non-cryo treated fibromyalgic subjects, as indicated by the scores of the qualitative indexes and sub-indexes, that are widely recognized tools to assess the overall health status and the effect of the treatments. We speculate that this improvement is due to the known direct effect of cryotherapy on the balance between pro- and anti-inflammatory mediators having a recognized role in the modulation of pain.

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