

Fibromyalgia

Fibromyalgia (FM) is a chronic pain syndrome of unknown etiology. The disease is characterized by widespread musculoskeletal pain, fatigue and multiple tender points in the neck, spine, shoulders and hips. An estimated 3 to 6 million Americans are afflicted by fibromyalgia, which is often poorly controlled by standard pain medications.

Fibromyalgia patients frequently self-report using cannabis therapeutically to treat symptoms of the disease,[1-2] and physicians – in instances where it is legal for them do so – often recommend the use of cannabis to treat musculoskeletal disorders.[3-4] To date however, there are few clinical trials assessing the use of cannabinoids to treat the disease.

Writing in the July 2006 issue of the journal *Current Medical Research and Opinion*, investigators at Germany's University of Heidelberg evaluated the analgesic effects of oral THC in nine patients with fibromyalgia over a 3-month period. Subjects in the trial were administered daily doses of 2.5 to 15 mg of THC and received no other pain medication during the trial. Among those participants who completed the trial, all reported a significant reduction in daily recorded pain and electronically induced pain.[5]

A 2008 study published in *The Journal of Pain* reported that the administration of the synthetic cannabinoid nabilone significantly decreased pain in 40 subjects with fibromyalgia in a randomized, double-blind, placebo-controlled trial. "As nabilone improved symptoms and was well-tolerated, it may be a useful adjunct for pain management in fibromyalgia," investigators concluded.[6] A separate 2010 trial performed at McGill University in Montreal reported that low doses of nabilone significantly improved sleep quality in patients diagnosed with the disease.[7]

Most recently, a 2011 observational, case-control trial reported that the use of cannabis is associated with beneficial effects on various symptoms of fibromyalgia, including the relief of pain and muscle stiffness. Investigators at the Institut de Recerca Hospital del Mar in Barcelona, Spain, assessed the associated benefits of cannabis in patients with fibromyalgia compared with FM patients who did not use the substance. Twenty-eight users and non-users participated in the study.

Authors reported: "Patients used cannabis not only to alleviate pain but for almost all symptoms associated to FM, and no one reported worsening of symptoms following

NORML

Working to Reform Marijuana Laws

cannabis use. ... Significant relief of pain, stiffness, relaxation, somnolence, and perception of well-being, evaluated by VAS (visual analogue scales) before and two hours after cannabis self-administration was observed." Cannabis users in the study also reported higher overall mental health summary scores than did non-users. Investigators concluded: "The present results together with previous evidence seem to confirm the beneficial effects of cannabinoids on FM symptoms."^[8]

Previous clinical and preclinical trials have shown that both naturally occurring and endogenous cannabinoids hold analgesic qualities,^[9-12] particularly in the treatment of pain resistant to conventional pain therapies. (Please see the 'Chronic Pain' section of this book for further details.) As a result, some experts have suggested that cannabinoids are potentially applicable for the treatment of chronic pain conditions such as fibromyalgia,^[13] and have theorized that the disease may be associated with an underlying clinical deficiency of the endocannabinoid system.^[14]

REFERENCES

- [1] Swift et al. 2005. Survey of Australians using cannabis for medical purposes. *Harm Reduction Journal* 4: 2-18.
- [2] Ware et al. 2005. The medicinal use of cannabis in the UK: results of a nationwide survey. *International Journal of Clinical Practice* 59: 291-295.
- [3] Dale Gieringer. 2001. Medical use of cannabis: experience in California. In: Grotenhermen and Russo (Eds). *Cannabis and Cannabinoids: Pharmacology, Toxicology, and Therapeutic Potential*. New York: Haworth Press: 153-170.
- [4] Gorter et al. 2005. Medical use of cannabis in the Netherlands. *Neurology* 64: 917-919.
- [5] Schley et al. 2006. Delta-9-THC based monotherapy in fibromyalgia patients on experimentally induced pain, axon reflex flare, and pain relief. *Current Medical Research and Opinion* 22: 1269-1276.
- [6] Skrabek et al. 2008. Nabilone for the treatment of pain in fibromyalgia. *The Journal of Pain* 9: 164-173.
- [7] Ware et al. 2010. The effects of nabilone on sleep in fibromyalgia: results of a randomized controlled trial. *Anesthesia and Analgesia* 110: 604-610.
- [8] Fiz et al. 2011. Cannabis use in patients with fibromyalgia: Effect on symptoms relief and health-related quality of life. *PLoS One* 6.
- [9] Burns and Ineck. 2006. Cannabinoid analgesia as a potential new therapeutic option in the treatment of chronic pain. *The Annals of Pharmacotherapy* 40: 251-260.

- [10] David Secko. 2005. Analgesia through endogenous cannabinoids. *CMAJ* 173.
- [11] Wallace et al. 2007. Dose-dependent effects of smoked cannabis on capsaicin-induced pain and hyperalgesia in healthy volunteers. *Anesthesiology* 107:785-96.
- [12] Cox et al. 2007. Synergy between delta9-tetrahydrocannabinol and morphine in the arthritic rat. *European Journal of Pharmacology* 567: 125-130.
- [13] Lynch and Campbell. 2011. op. cit.
- [14] Ethan Russo. 2004. Clinical endocannabinoid deficiency (CECD): Can this concept explain therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions? *Neuroendocrinology Letters* 25: 31-39.