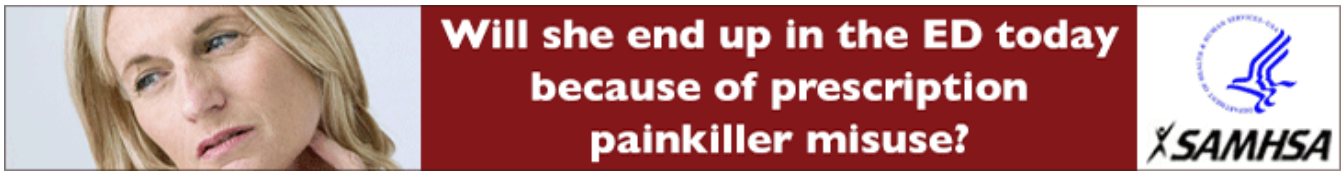

Low-Dose Naltrexone Effective Therapy for Fibromyalgia

By Nikki Kean (/author/10551/kean)

Anti-inflammatory Effect Source of Effectiveness

Presentation by Jarred Younger, PhD

(http://www.practicalpainmanagement.com/sites/default/files/imagecache/lightbox-large/images/2015/07/10/16059660_M.jpg)

Now that it is known that much of the pain associated with fibromyalgia originates in the central nervous system (/meeting-summary/fibromyalgia-central-nervous-system-origins) , pinpointing treatments that target glia cell activity in the brain would be a logical option. Researchers at Stanford University have been studying the effectiveness of one such agent, and have shown low-dose naltrexone (LDN) (/meeting-summary/fibromyalgia-pain-reduced-low-dose-naltrexone) to be an effective, highly tolerable, and inexpensive treatment for some women with fibromyalgia (FM).1,2

Although they have established that LDN worked in patients with FM,1,2 they were not entirely certain how it worked. To answer that question, they conducted a pilot study and found that LDN has specific anti-inflammatory effects on immune function that may help reduce symptoms of FM in women.3

"Fibromyalgia is characterized by widespread pain, increased sensitivity to normal physical stimuli, and fatigue," reported Jarred Younger, PhD, Stanford University, Palo Alto, California.3 "Naltrexone has previously been shown to suppress glial activation in animals and low-dose naltrexone has been shown to be effective in reducing symptoms of FM in women." What has remained a mystery, however, is the mechanism of action.

To evaluate this question, the researchers recruited women with FM who had no known inflammatory or autoimmune disorder. Patients were given a regimen of oral low-dose naltrexone (4.5 mg/d) for 8 weeks. Participants blood was tested twice-weekly for cytokine concentrations, following a 2 week washout period.

After the 10-week study was completed, the investigators found that 5 of 8 participants had an overall reduction in pain (range: 12.2% to 52.3%). After correcting for multiple comparisons, 11 of the analytes showed a significant decrease over time in the entire group: interleukin (IL)-1Ra (P=0.002), IL-2 (P=0.002), IL-5 (P=0.009), IL-6 (P<0.001), IL-12p70 (P=0.003), G-CSF (P=0.010), TNF-α (P=0.005), TGF-β (P=0.006), MCP-3 (P=0.003), ENA-78 (P=0.001), and resistin (P=0.003).

This study was a follow-up to earlier studies of LDN. In a trial sponsored by the American Fibromyalgia Syndrome Association, Dr. Younger and colleagues evaluated 30 women with fibromyalgia, completing 2 weeks of baseline measurements, 12 weeks of LDN treatment, 4 weeks of placebo, and 4 weeks of follow up.3

The primary outcome for all patients was daily pain, reported through patient symptom severity reports via handheld computer. At the end of the trial, patients reported a 43% reduction in pain during the LDN treatment when compared with the placebo treatment (33%). The only major side effects reported more frequently during the LDN phase of treatment were vivid dreams (37% in LDN vs 13% in placebo) and headache (16% in LDN vs 3% in placebo). During both treatment phases, patients reported similar tolerability (89.2 vs 89.4 out of 100).

As demonstrated in both trials, LDN can be beneficial in pain management for patients with fibromyalgia, with minimal side effects and a high degree of tolerability.

References

1. Younger J, McCue R, Noor N, Mackey S. Low-dose naltrexone reduces the symptoms of fibromyalgia: a double-blind and placebo-controlled crossover study. *Pain Med*. 2012;13(2):Abstract 251.

2. Younger J, Mackey S. Fibromyalgia symptoms are reduced by low-dose naltrexone: a pilot study. *Pain Med*. 2009;10(4):663-672.

3. Parkitny L, Moosavi R, Younger J. A potential anti-inflammatory effect of low-dose naltrexone in fibromyalgia. Paper presented at: Annual Meeting of the American Pain Society; May 13-16, 2015; Palm Springs, CA.

Next summary: Nerve Involvement Explains Why Some Cancers are Very Painful (/meeting-summary/nerve-involvement-explains-why-some-cancers-are-very-painful)

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Acute Pain
Post-surgical Pain
Sports and Overuse Injury
Trauma
Cancer PainHeadache
Cluster Headache
Migraine
Post-trauma Headache

Tension Headache
Neuropathic Pain
Carpal Tunnel Syndrome
CRPS/RSD/Causalgia
Diabetic Neuropathy
Multiple Sclerosis
Phantom Limb Syndrome
Postherpetic Neuralgia
Trigeminal Neuralgia
Oral and Maxillofacial Pain
TMJ
Tooth Pain
Rheumatologic and Myofascial Pain
Fibromyalgia
Inflammatory Arthritis
Lupus and Other Autoimmune Disorders
Lyme and Other Infectious Diseases
Osteoarthritis
Plantar Fasciitis
Spine Pain
Discogenic Pain
Facet Syndrome
Myofascial Back Pain
Radiculopathy
Trauma
Other Types of Pain
Abdominal and Pelvis Pain
Brain Injury
General Musculoskeletal Pain
Pain Co-morbidities
Pain Treatments
Complementary Treatments
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Lasers
Magnets
Prolotherapy
Interventional Pain Management
Ablations
Injections
Pumps
Stimulators
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