

## Concord Sport & Spine Newsletter



### Is Lyrica effective for treating Sciatica?

The use of Pregabalin or Gabapentin to treat radicular pain has increased significantly in recent years. Interestingly, there are no controlled trials supporting this practice. True 'sciatica' is the most common form of radicular pain, followed by pain due to cervical radiculopathy. Surprisingly, because of limited research evidence, clinical guidelines for the management of sciatica are scarce. Two recent studies examined the effectiveness of commonly prescribed anti-epileptics – Lyrica and Neurontin, for treating chronic low back pain, and / or acute or chronic sciatic pain. Both were randomized, double-blind, placebo-controlled trials. It would surprise many to know that, in both studies, neither drug was any more effective than placebo for improving pain intensity or quality of life. This was the same for patients with localized chronic low back pain, and for those with acute or chronic sciatica. The studies are summarized below.

**Atkinson et al (2016)** reported on 108 chronic pain patients (daily symptoms for 6 months+). 46 had radiating leg pain, and 62 had localised LBP. They were randomly assigned to treatment with Gabapentin or placebo, and followed up for 12 weeks. Patients were recruited from primary care and community settings. 55 patients received the drug, and 53 received a placebo. Those receiving Gabapentin did so at a dose both recommended in the literature, and employed in previously successful trials in either neuropathic pain or fibromyalgia. This featured a four-week dose escalation phase, and 8 weeks of treatment. Outcome measures were changes in pain intensity, and disability scores (using the Oswestry Disability Index).

**Results:** While there were up to 30% reductions in pain over the 12-week period, this was the same for both groups. There was no difference between those with and without radiating pain. The authors concluded that "Gabapentin appears to be ineffective for analgesia in

chronic low back pain with or without a radiating component." Their results were consistent with a previous low-dose trial of Gabapentin for referred pain (McCleane 2001). And while Gabapentin is often "considered to have a benign side-effects profile...adverse effects were higher than expected". 89% of subjects on Gabapentin reported some adverse effects, of which 38% were moderate & 16% 'marked'. These included fatigue, difficulties with concentration or memory, visual disturbances, loss of balance, or dryness of the mouth. In the placebo group 66% reported adverse effects, with 22% being moderate & 9% marked.

**Mathieson et al (2017)** reported on patients with moderate to severe sciatica, recruited in NSW between 2013 and 2015. While symptoms ranged from one week to 12 months, 80% of patients had acute pain. They were randomly assigned to treatment with Pregabalin (106 patients) or placebo (101 patients), and followed up for 8 weeks and then at 1 year. Pregabalin doses started at 150mg, and increased up to a maximum of 600mg, in accordance with existing dosing recommendations. Doses were increased over 3 weeks, maintained for four weeks, then reduced over the final week. Outcome measures were pain intensity (on a 0 to 10 scale - with a clinically important difference defined as a 1.5 point change), and disability scores (on both the Roland Disability Questionnaire for Sciatica, and the Short Form Health Survey 12).

**Results:** Over 90% of patients were retained for the 8-week follow-up, and 86% at 12 months. The results showed that Pregabalin was no more effective than placebo in reducing leg pain intensity in patients with moderate to severe sciatica. There was no difference between those with acute (< 12 weeks) or chronic symptoms. Disability scores were also no different

between groups. The incidence of adverse effects was higher in the Pregabalin group. The authors noted that, while a previous study had found Pregabalin to be ineffective for treating chronic lumbar radiculopathy (Baron et al 2010), the current research extended the findings to include those with acute sciatica.

**Conclusion:** Previous studies have reported that either Lyrica or Neurontin may be beneficial in treating some types of neuropathic pain, including postherpetic neuralgia and diabetic peripheral neuropathy. This has prompted their use in the treatment of radicular pain syndromes. In recent years, there has been an increasing rate of prescription of these drugs for the treatment of lumbosacral radiculopathy. However, two recent and high-quality studies have shown no benefit for either Lyrica or Neurontin for improving pain or function in patients with low back pain or sciatica. While previous studies had found no significant effects for subjects with chronic symptoms, Mathieson's et al results demonstrated no benefit in using Lyrica for the treatment of acute sciatica.

#### **References:**

Atkinson, J et al (2016). A randomized controlled trial of gabapentin for chronic low back pain with and without a radiating component. Pain, 157, 7, 1499-1507.

Mathieson, S et al (2017). Trial of pregabalin for acute and chronic sciatica. New England Journal of Medicine, 376, 12, 1111-1120.

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