

the spin

SPINAL CORD INJURY BC

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Fashion Forward

Vancouver fashion designer Chloë Angus reveals her tips on style, the ups and downs of self-employment, and why her SCI made her better at her job

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Blueprint for Treatment

New Canadian clinical guidelines attempt to rank treatment options for SCI neuropathic pain

Our readers know that treating neuropathic pain—one of the most common and debilitating secondary health complications of SCI—is a complex business. There are many options for treatment, from a range of prescription drugs to a host of holistic approaches. But neuropathic pain is notoriously difficult to manage, and no single treatment option has ever proven to be entirely effective. In fact, it often takes a great deal of trial and error with multiple approaches to find a treatment regimen that offers even some modest relief for each individual.

What works best? What doesn't work well? What should be the first treatment options that physicians and their patients consider? Which ones should they shy away from? These are the questions that a group of researchers based at London, Ontario's Lawson Health Research Institute have been wrestling with during the past three years as they've attempted to develop Canada's first clinical practice guidelines for managing neuropathic pain experienced by people with SCI.

"We know that neuropathic pain has a significant impact on those with SCI, and in a number of surveys, it has been identified as one of the most bothersome issues for people after SCI," says Dr. Eldon Loh, a Physical Medicine and Rehabilitation Specialist at St. Joseph's Hospital in London who led the research team. "From our own survey data, we

found a desire among Canadian rehabilitation providers—therapists, physicians, and nurses—to have a guideline that they could refer to on this issue. I think the difficulty with neuropathic pain after SCI for any rehabilitation provider is successfully helping someone with this type of pain, and the previous lack of specific guidelines that could be used to assist in their care. Even internationally, there was no specific document that provided a rigorously developed approach to management of neuropathic pain after SCI, until now."

The culmination of the three-year process was the recent publication of new guidelines in the international journal *Spinal Cord*. The guidelines contain 12 recommendations for both pharmaceutical and non-pharmaceutical treatments. Of these, 10 treatments are sequential recommendations for treatment (sequential in that treatments with the strongest evidence are recommended first, and then failing their success, other treatments with less evidence are to be tried next). The final two recommendations are advice against the use of two therapies.

The guidelines were specifically developed for clinicians within the rehabilitation environment that treat those with SCI—physiatrists, physiotherapists, occupational therapists, and nurses. But Loh points out that many more health care professionals can make good use of the guidelines.

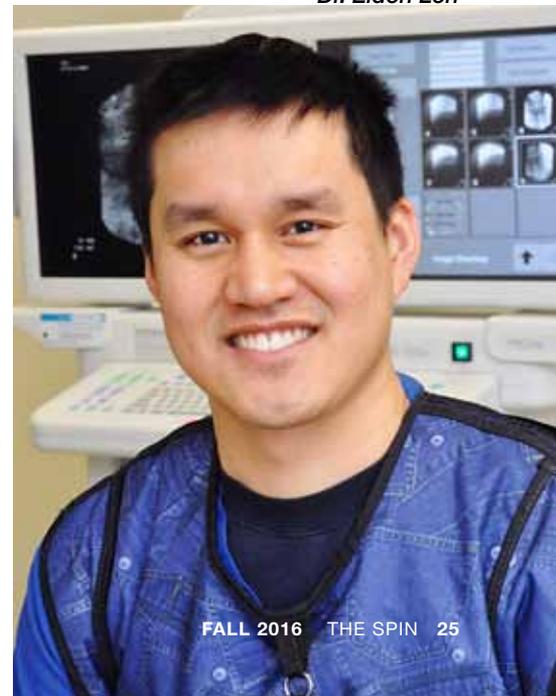
"These guidelines would certainly be helpful to anyone who looks after people with SCI, including family doctors," he says. "There are recommendations that can help guide the care of those with neuropathic pain after SCI, and there is information in the guidelines to help clinicians such as family doctors decide when more specialized care is necessary."

What about people with SCI themselves—should they familiarize themselves with the guidelines?

"Absolutely," says Loh. "One of the key principles advocated in the guidelines is establishing a self-management plan for neuropathic pain. Being aware that these guidelines exist and promoting the guidelines as a resource to someone's own healthcare professional are certainly important parts of that."

If you take the time to look at the individual recommendations (see sidebar on the next page), you might think at first glance that they are incomplete. For example, two strategies for self-management of neuropathic pain that we wrote about in the June issue of *The Spin*, cannabis and mindfulness, are not included. The reason? The researchers only made recommendations based on a review of scientifically-valid research. And the sad truth is that, despite a wealth of anecdotal evidence, there has never been any credible research completed about the use of cannabis specifically for use in SCI neuropathic pain.

Dr. Eldon Loh



“At the outset,” explains Loh, “we established that these guidelines would look specifically at research that examined treatment within the SCI population. As there are currently no studies examining the use of cannabis for neuropathic pain in spinal cord injury, this specific treatment was excluded, in keeping with our methodology.”

However, it’s interesting to note that Loh and his colleagues singled out cannabis as a potential treatment for SCI neuropathic pain that should be studied as soon as possible.

“With widespread media attention on cannabinoids as a treatment for refractory chronic pain and more liberalized access to these agents in Canada, patients frequently request them,” wrote the authors. “Although cannabinoids appear to be beneficial in multiple sclerosis, evidence in SCI is lacking. There is insufficient evidence at this stage to recommend the use of cannabinoids for the treatment of SCI-related pain, but more information is urgently needed to guide their use in patients with SCI.”

Additionally, the authors offered this cautionary note about the guidelines.

“It should be strongly emphasized that the overall body of evidence for the management of at- and below-level (neuropathic pain) is inadequate,” they wrote. “This includes the evidence that has been used to support recommendations put forward by our group...It is crucially important to recognize the limited evidence on which these recommendations as a whole are based. Limitations in the evaluated evidence include the use of mixed patient populations and SCI pain types, a lack of (randomized control trials), small sample sizes and potential lack of power... The lack of evidence for benefit of many therapies significantly hampers clinicians’ ability to deliver optimal care to all patients. Research is therefore urgently needed on all the therapies in this guideline to better guide appropriate clinical use.”

The guidelines will be updated as additional evidence becomes available. ■

SUMMARY OF RECOMMENDATIONS

The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord

FIRST-LINE THERAPY

RECOMMENDATION 2.1: Pregabalin should be used for the reduction of neuropathic pain intensity among people with SCI.

Quality of evidence: High.

Strength of Recommendation: Strong.

“Pregabalin is recommended as the first choice of first-line medications, as it has the strongest evidence of any treatment modality in below-level neuropathic pain: all studies demonstrate a significant reduction in pain intensity.”

RECOMMENDATION 2.2: Gabapentin should be used for the reduction of neuropathic pain intensity among people with SCI.

Quality of evidence: High.

Strength of Recommendation: Strong.

“Gabapentin is recommended as the next choice when pregabalin is not an option or has been proven ineffective, as the evidence supporting gabapentin in SCI-related NP is not as strong as that for pregabalin.”

RECOMMENDATION 2.3: Amitriptyline can be used for the reduction of neuropathic pain intensity among people with SCI.

Quality of evidence: High.

Strength of Recommendation: Strong.

“If pregabalin and gabapentin have been ineffective, then amitriptyline is recommended; less evidence exists for the efficacy of amitriptyline than for the gabapentinoids.”

SECOND-LINE THERAPY

RECOMMENDATION 2.4: Tramadol can be used for the reduction of neuropathic pain intensity among people with SCI.

Quality of evidence: Moderate.

Strength of Recommendation: Strong.

RECOMMENDATION 2.5: Lamotrigine may be considered in those with incomplete SCI for the reduction of neuropathic pain intensity.

Quality of evidence: Moderate.

Strength of Recommendation: Strong.

THIRD-LINE THERAPY

RECOMMENDATION 2.6: Transcranial direct current stimulation (tDCS) may be considered for reducing neuropathic pain intensity among people with SCI.

Quality of evidence: High.

Strength of Recommendation: Weak.

RECOMMENDATION 2.7: Combined visual illusion and transcranial direct current stimulation may be considered for reducing neuropathic pain intensity among people with SCI.

Quality of evidence: High.

Strength of Recommendation: Weak.

FOURTH-LINE THERAPY

RECOMMENDATION 2.8: Transcutaneous electrical nerve stimulation (TENS) may be considered for the reduction of neuropathic pain intensity among people with SCI.

Quality of evidence: Low.

Strength of Recommendation: Weak.

RECOMMENDATION 2.9: Oxycodone can be used for the reduction of neuropathic pain intensity among people with SCI.

Quality of evidence: Moderate.

Strength of Recommendation: Weak.

RECOMMENDATION 2.10: The dorsal root entry zone (DREZ) procedure may be considered in exceptional circumstances and as a last resort for reducing neuropathic pain intensity among people with SCI.

Quality of evidence: Low.

Strength of Recommendation: Weak.

ADVISE AGAINST USE

RECOMMENDATION 2.11: Levetiracetam should not be used for reducing neuropathic pain intensity among people with SCI.

Quality of evidence: High.

Strength of Recommendation: Strong.

RECOMMENDATION 2.12: Mexiletine should not be used for reducing neuropathic pain intensity among people with SCI.

Quality of evidence: High.

Strength of Recommendation: Strong.